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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,781	08/17/2006	Hiroshi Itoh	1248-0893PUS1	2315

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

RAINEY, ROBERT R

ART UNIT	PAPER NUMBER
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2629

NOTIFICATION DATE	DELIVERY MODE
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05/29/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/589,781	Applicant(s) ITOH ET AL.	
	Examiner ROBERT R. RAINEY	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-76 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Election/Restriction and Requirement for Information</u> . |

Election/Restriction and Requirement for Information

Election/Restrictions

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Applicant describes 20 embodiments, but some of these embodiments, such as number 20, have enumerated variations that also seem to be embodiments. The breakdown into species is complicated beyond the number of embodiments because some so named embodiments seem to refer to separate inventions that may be used together, i.e. change of individual pixel data levels more than once each vertical cycle and backlight modulation. Because of this and because of the number of described embodiments and figures and further because of the fact that applicant states that "An embodiment based on a proper combination of technical means disclosed in different embodiments is encompassed in the technical scope of the present invention. ", examiner has no reasonable way to identify all of the species of the instant application.

As an aid to his own understanding of the possible combinations disclosed, examiner developed the following, non-exhaustive list of options described. It is offered here as an example of what examiner considers to be one proper way to identify a species.

Basic concept (generic to all species): combine impulse and constant illumination driving

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- Display Type (choose 1)
 - LCD
 - EL
- Source of first and second intensity levels (choose 1)
 - change of individual pixel data levels more than once each vertical cycle
 - backlight modulation
 - Number of light sources (choose 1)
 - a single light source
 - two light sources
 - Modulation method (choose 1)
 - Change backlight intensity
 - Separate modulator between backlight and pixel display (choose 1)
 - variable
 - on/off
- Intensity level generation method
 - amplitude
 - PWM

Example species from the above: LCD using PWM of a single light source

backlight to generate first and second intensity levels.

Applicant is required, in reply to this action, to identify and elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims

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are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

The following claim(s) are generic: 1 and 76 seem to be generic to all disclosed species.

3. The species do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Each species necessarily includes features different in some way from those of every other species. If it is the totality of the features of a species that represent the special technical feature, that is that which distinguishes the invention over the prior art, then no other species shares that same special technical feature. This is the case when no generic or linking claim is found to be allowable.

Since applicant's disclosure and claims involve a basic concept that may be implemented in different ways on different platforms and with different combinations of features, divisions from generically claimed features into species specific versions of the generic feature can appear at multiple levels in the claim tree. Applicant is encouraged to identify elected claims that are generic to a subset of species (and the claims

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regarding the subset). This will help examiner identify claims that should be rejoined should a claim or claims be found to be allowable.

Requirement for Information

4. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

5. In response to this requirement, please provide the title, citation and copy of each publication that is cited at the end of the paper "A Method of Improving AMLCD Motion Picture Quality" that has Inventors Itoh and Seo as co-authors. For the publication not in the English language please provide a concise explanation of the relevance of the publication. For each publication please provide an indication of teachings from the concise explanation of relevance provided for the paper "A Method of Improving AMLCD Motion Picture Quality" that may be found in the publication, if any. The English language part of the citations are repeated here for convenience.

- [1] EID200-47, pp.13-18(2000-09)
- [2] J. Hirakata: "Super-TFT-LCD for Moving Picture Images with the Blink Backlight System", SID 01 DIGEST, 35.2, pp. 990-993 (2001)
- [3] T. Kurita: "Proposal of a Motion-Adaptive Intermittent Displayed Light Method", IDW 03 VHF2-5, pp.1733-1734 (2003)

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6. In response to this requirement, please provide answers to each of the following interrogatories eliciting factual information:

Precisely identify which portion(s) of the disclosure provide the written description and enablement support for specific claim element(s).

- Indicate the drawings and relevant portions of the specification that describe the elected species.
- Conditions B: $48 < S < 62$, and $D \leq (S-48)/0.23$, especially as S approaches 48. It appears that the limitation requires an infinite instantaneous intensity in order to provide 48% of the total intensity in no time.

In the author list for the paper "A Method of Improving AMLCD Motion Picture Quality" Inventor Itoh is listed as Hiroshi ITO. Please provide a list of alternative versions, if any, of the names of Inventors Itoh and Seo that have been provided for applications or appeared on published patent applications for either the U. S. A. or Japan.

7. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

8. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

9. The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

10. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

Conclusion

Note that the shortened statutory time limit set for both the election/restriction and requirement for information is set on the accompanying summary at 2 months from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT R. RAINEY whose telephone number is (571)270-3313. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RR/

/Abbas I Abdulsalam/
Primary Examiner, Art Unit 2629

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